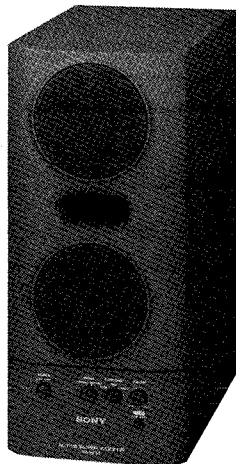


SA-W55X

SERVICE MANUAL

*US Model
AEP Model
UK Model
E Model*



SPECIFICATIONS

Amplifier section

Continuous RMS power output	70 W
Peak music power output	280 W
Harmonic distortion	Less than 5% at rated output
Frequency response	20 Hz – 60 Hz, 90 Hz, 120 Hz
Input	INPUT: Phono jack, 150 mV/10 kilohms (at 70 Hz)
Phase control	NORMAL, REVERSE
Turnover frequencies	60 Hz, 90 Hz, 120 Hz

Speaker section

Speaker units	10 cm (4 inches) cone type woofer (4)
Enclosure	Bass reflex
Impedance	12 ohms

General

Power requirement	US model: 120 V AC, 50/60 Hz AEP model: 220 – 230 V AC, 50/60 Hz UK model: 240 V AC, 50/60 Hz E model: 110 – 120 V AC, 50/60 Hz (E23) 220 – 240 V AC, 50/60 Hz (E12)
Power consumption	90 W
Dimensions	Approx. 160 x 365 x 315 mm (6 ⁵ / ₁₆ x 14 ³ / ₈ x 12 ³ / ₈ inches) (w/h/d)
Weight	Approx. 9 kg (19 lb. 13 oz.)
Accessories	Connection adaptor (1)

Design and specifications subject to change without notice.



ACTIVE SUPER WOOFER
SONY®

SAFETY CHECK-OUT

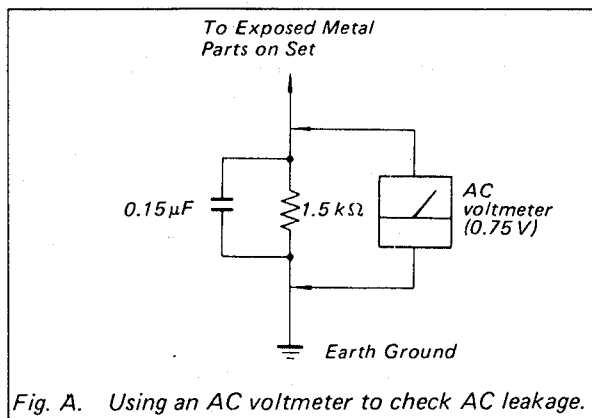
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

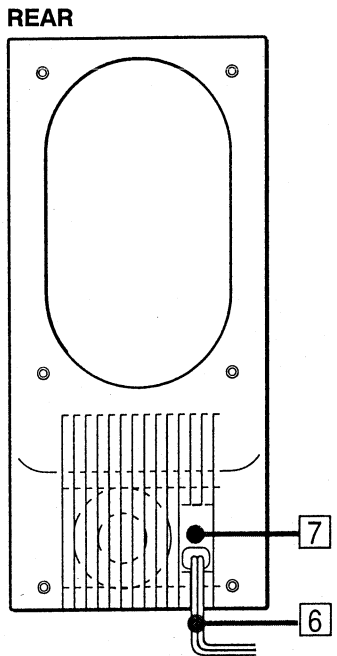
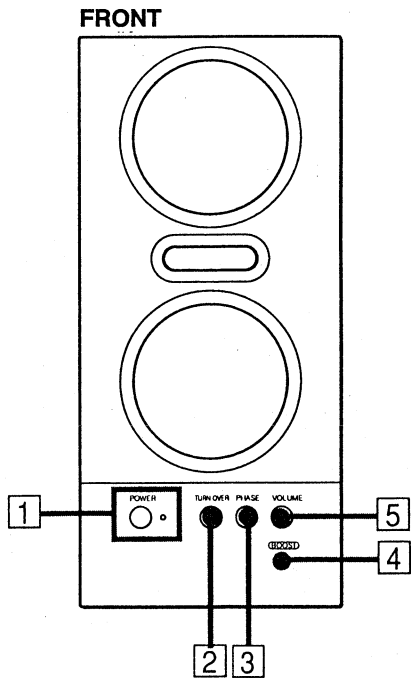


SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
GENERAL

LOCATION AND FUNCTION OF CONTROLS



1 POWER button and indicator

When the button is pressed, the indicator lights up, and the unit is set in power stand-by mode — the internal power amplifier is automatically turned on when receiving any input signals. When not receiving input signal during a few minutes, the amplifier is automatically turned off. Press the POWER button again when the unit is not used.

2 TURNOVER frequency selector

Select the turn-over frequency among 60 Hz, 90 Hz, and 120 Hz so that the highest frequency of the unit may smoothly contact with the lowest frequency of the front speaker systems.

When the front speaker system has a large size woofer, set the selector to 60 Hz. When the front speaker system has a medium size woofer, set the selector to 90 Hz. When the front speaker system has a small size woofer, set the selector to 120 Hz.

3 PHASE selector

Set the phase to NORMAL or REVERSE according to the phase of the front speakers.

4 BOOST button

To boost the bass sound, press the button.

5 VOLUME control

Adjust the control to balance the volume of this unit with that of the front speaker system. To increase the volume, turn the control clockwise. To decrease the volume, turn the control counter-clockwise.

When connecting to the compact audio system of Sony

TURNOVER	PHASE	VOLUME
90 Hz	NORMAL	Center

Notes

- Do not drive the unit with an extremely high input power to avoid damaging the speaker system.
- Before operating the power switch and the controls of the amplifier, set the VOLUME control to minimum to avoid damaging the speaker system by switching noise.
- If howling occurs, decrease the volume or keep the unit away from the turntable system.

6 Power cord

Connect to an AC outlet of the amplifier or a wall outlet.

7 INPUT terminal

Connect to the connection adaptor or the CENTER terminal of the amplifier.

SECTION 2
DIAGRAMS

Note on Printed Wiring Board:

- : parts extracted from the component side.

Note on Schematic Diagram:

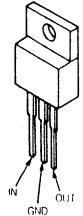
- All capacitors are in μF unless otherwise noted. pF: μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

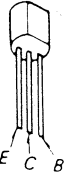
- $B+$: B + Line.
- $B-$: B - Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (10 M Ω /V). Voltage variations may be noted due to normal production tolerances.

• Semiconductor Lead Layouts

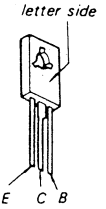
M5F78M12L



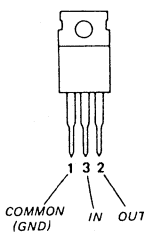
2SC1841-PAFAEA



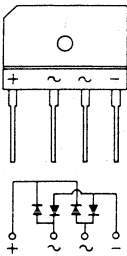
2SC2603-EF
2SD882-P



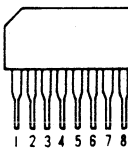
M5F79M12L



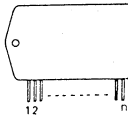
RBA-402



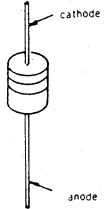
M5218AL
 μ PC1237HA



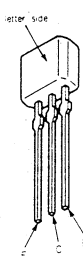
STK415211



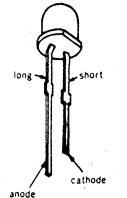
1SS120
11ES2



2SA1175-HFE



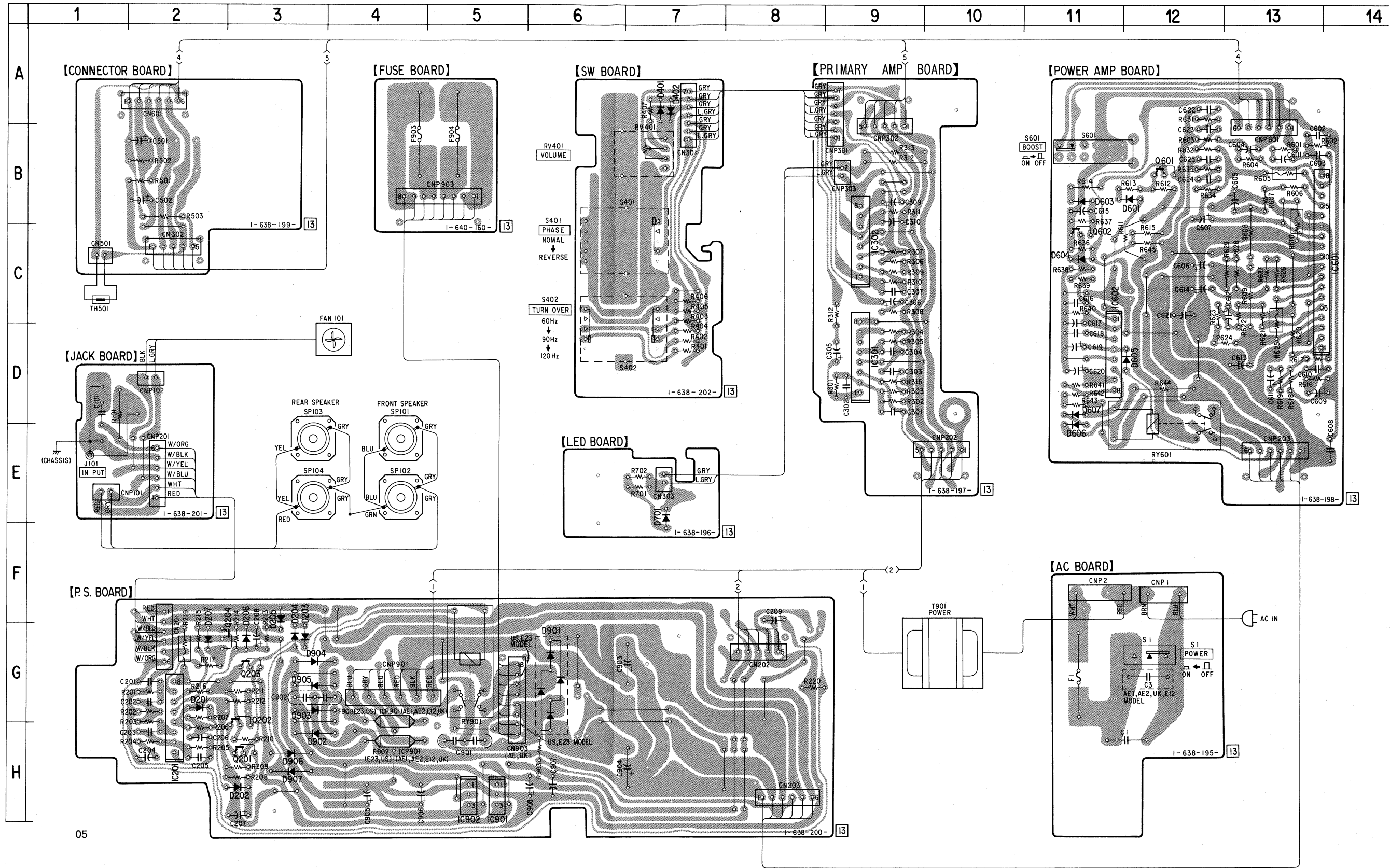
SEL2510C



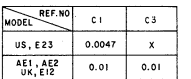
2-1. PRINTED WIRING BOARDS • See page 3 for notes and Semiconductor Lead Layouts.

• Semiconductor Location

Ref. No.	Location
D201	G-2
D202	H-3
D203	F-3
D204	F-3
D205	F-3
D206	F-3
D207	F-2
D401	A-7
D402	A-7
D601	B-12
D603	B-11
D604	C-11
D605	D-12
D606	E-11
D607	D-11
D701	E-7
D901	G-6
D902	H-3
D903	G-3
D904	G-3
D905	G-3
D906	H-3
D907	H-3
IC201	H-2
IC301	D-9
IC302	C-9
IC601	C-14
IC602	D-11
IC901	H-5
IC902	H-5
Q201	H-3
Q202	G-3
Q203	G-3
Q204	G-3
Q601	B-12
Q602	C-11



5

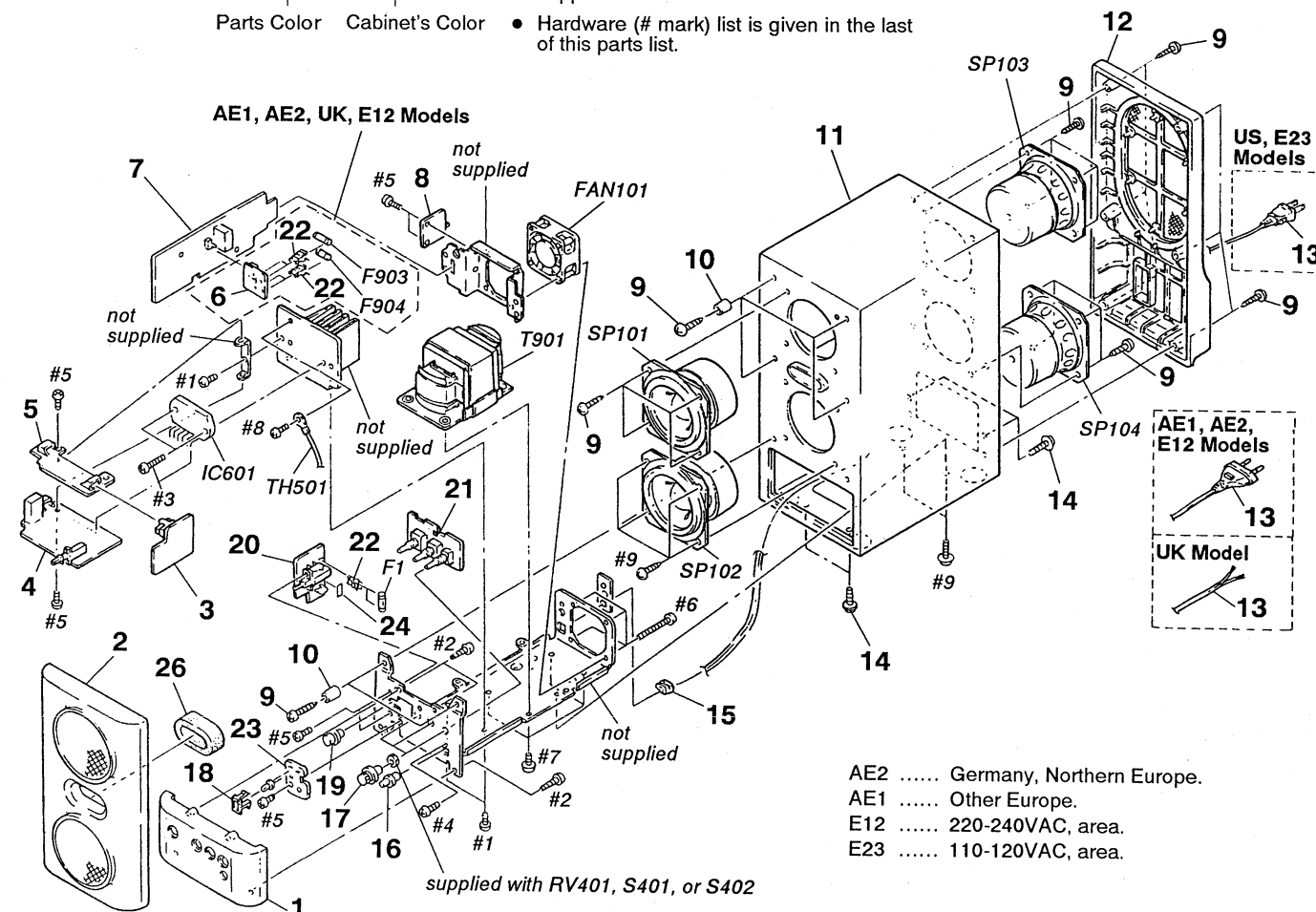


SECTION 3 EXPLODED VIEW

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) ... (RED)
↑
Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.



AE2 Germany, Northern Europe.
AE1 Other Europe.
E12 220-240VAC, area.
E23 110-120VAC, area.

Ref. No.	Part No.	Description	Remark
1	X-4941-563-1	PANEL (B) ASSY. FRONT	
2	X-2145-801-1	PANEL (A) ASSY. FRONT (EXCEPT US)	
2	X-4941-565-1	PANEL (B) ASSY. FRONT (US)	
3	* 1-638-199-11	CONNECTOR BOARD	
4	* A-4345-431-A	POWER AMP BOARD, COMPLETE	
5	* 1-638-197-11	PRIMARY AMP BOARD	
6	* 1-640-160-11	FUSE BOARD (UK, E12)	
7	* A-4345-424-A	P. S. MOUNT (US, E23)	
7	* A-4345-426-A	P. S. MOUNT (AE1, AE2, UK, E12)	
8	* 1-638-201-11	JACK BOARD	
9	4-874-614-61	SCREW (4) (3.5X16), TAPPING	
10	* 2-145-810-01	CATCHER	
11	X-4941-599-1	CABINET ASSY. SPEAKER (AE1, UK, E12, E23)	
11	X-4941-597-1	CABINET ASSY. SPEAKER (US)	
11	X-4941-598-1	CABINET ASSY. SPEAKER (AE2)	
12	* X-2145-803-3	PANEL ASSY. BACK	
13	Δ 1-575-105-21	CORD, POWER (US)	
13	Δ 1-575-653-11	CORD, POWER (E23)	
13	Δ 1-575-651-32	CORD, POWER (AE1, AE2, E12)	
13	Δ 1-575-669-31	CORD, POWER (UK)	
14	4-941-676-01	SCREW (M4X20), TAP TIGHT	

Ref. No.	Part No.	Description	Remark
15	* 3-703-244-00	BUSHING (2104), CORD (EXCEPT E23)	
15	* 3-703-571-00	BUSHING (S) (4516), CORD (E23)	
16	2-145-817-01	BUTTON (B)	
17	* 2-145-816-01	KNOB	
18	* 4-934-893-01	HOLDER, LED	
19	2-145-815-01	BUTTON (A)	
20	* 1-638-195-11	AC BOARD (AE1, AE2)	
21	* 1-638-202-11	SW BOARD	
22	* 1-533-213-31	HOLDER, FUSE	
23	* 1-638-196-11	LED BOARD	
24	3-701-947-12	LABEL (T1, 25A), FUSE (AE1, AE2, UK, E12)	
26	* 2-145-808-01	PACKING (A) (EXCEPT US)	
F1	Δ 1-532-285-00	FUSE, TIME-LAG T1, 25A (AE1, AE2, UK, E12)	
F1	Δ 1-532-744-11	FUSE, GLASS TUBE 2.5A (US, E23)	
F903	Δ 1-532-299-00	FUSE, TIME-LAG T5A (AE1, AE2, UK, E12)	
F904	Δ 1-532-299-00	FUSE, TIME-LAG T5A (AE1, AE2, UK, E12)	
FAN101	1-541-789-11	MOTOR, DC FAN	
SP101	1-544-455-11	SPEAKER (10CM)	
SP102	1-544-455-11	SPEAKER (10CM)	
SP103	1-544-455-11	SPEAKER (10CM)	
SP104	1-544-455-11	SPEAKER (10CM)	
T901	Δ 1-450-434-11	TRANSFORMER, POWER (UK, E12)	
T901	Δ 1-450-435-11	TRANSFORMER, POWER (US, E23)	
T901	Δ 1-450-436-11	TRANSFORMER, POWER (AE1, AE2)	
TH501	1-800-427-00	POSISTOR	

SECTION 4 ELECTRICAL PARTS LIST

P.S. POWER AMP AC LED PRIMARY AMP

CONNECTOR JACK SW FUSE

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When including parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* A-4345-424-A	P. S. MOUNT (US, E23)	*****		C203	1-162-294-31	CERAMIC	0.001uF 10% 50V
* A-4345-426-A	P. S. MOUNT (AE1, AE2, UK, E12)	*****		C204	1-126-162-11	ELECT	3.3uF 20% 50V
* A-4345-431-A	POWER AMP BOARD, COMPLETE	*****		C205	1-162-288-31	CERAMIC	330PF 10% 50V
* 1-638-195-11	AC BOARD	*****		C206	1-126-300-11	ELECT	0.47uF 20% 50V
* 1-638-196-11	LED BOARD	*****		C207	1-126-025-11	ELECT	330uF 20% 25V
* 1-638-197-11	PRIMARY AMP BOARD	*****		C208	Δ 1-126-059-11	ELECT	10uF 20% 50V
* 1-638-199-11	CONNECTOR BOARD	*****		C209	1-126-162-11	ELECT	3.3uF 20% 50V
* 1-638-201-11	JACK BOARD	*****		C301	1-162-282-31	CERAMIC	100PF 10% 50V
* 1-638-202-11	SW BOARD	*****		C302	1-162-282-31	CERAMIC	100PF 10% 50V
* 1-640-160-11	FUSE BOARD	*****		C303	1-136-167-00	FILM	0.15uF 5% 50V
* 1-533-213-31	HOLDER, FUSE			C304	1-136-167-00	FILM	0.15uF 5% 50V
* 4-374-846-01	COVER, CAPACITOR, CAP TYPE			C305	1-124-910-11	ELECT	47uF 20% 50V
* 4-934-893-01	HOLDER, LED			C306	1-124-910-11	ELECT	47uF 20% 50V
< CAPACITOR >				C307	1-162-282-31	CERAMIC	100PF 10% 50V
C1	1-161-744-00	CERAMIC	0.01uF 20% 400V	C309	1-131-348-00	TANTALUM	1.5uF 10% 35V
C1	1-161-744-00	CERAMIC	0.04uF 20% 400V	C310	1-131-341-00	TANTALUM	0.1uF 10% 35V
C3	1-161-744-00	CERAMIC	0.01uF 20% 400V	C501	1-124-463-00	ELECT	0.1uF 20% 50V
C101	1-162-286-31	CERAMIC	220PF 10% 50V	C502	1-124-252-00	ELECT	0.33uF 20% 50V
C201	1-162-306-11	CERAMIC	0.01uF 20% 16V	C601	1-126-163-11	ELECT	4.7uF 20% 50V
C202	1-162-306-11	CERAMIC	0.01uF 20% 16V	C602	1-162-282-31	CERAMIC	100PF 10% 50V
				C603	1-162-286-31	CERAMIC	220PF 10% 50V
				C604	1-124-994-11	ELECT	100uF 20% 10V
				C605	1-124-910-11	ELECT	47uF 20% 50V
				C606	1-126-059-11	ELECT	10uF 20% 50V
				C607	1-124-122-11	ELECT	100uF 20% 50V
				C608	1-161-494-00	CERAMIC	0.022uF 25V
				C609	1-126-162-11	ELECT	3.3uF 20% 50V
				C610	1-162-286-31	CERAMIC	220PF 10% 50V
				C611	1-124-994-11	ELECT	100uF 20% 10V
				C612	1-124-910-11	ELECT	47uF 20% 50V
				C613	1-124-122-11	ELECT	100uF 20% 50V
				C614	1-126-233-11	ELECT	22uF 20% 50V
				C615	1-126-844-11	ELECT	33uF 20% 25V
				C616	1-161-494-00	CERAMIC	0.022uF 25V
				C617	1-126-101-11	ELECT	100uF 20% 16V

P.S.

POWER AMP

AC

LED

PRIMARY AMP

CONNECTOR

JACK

SW

FUSE

Ref. No.	Part No.	Description	Remark
C618	1-161-494-00	CERAMIC 0.022uF	25V
C619	1-126-162-11	ELECT 3.3uF 20%	50V
C620	1-126-844-11	ELECT 33uF 20%	25V
C621	1-126-059-11	ELECT 10uF 20%	50V
C622	1-136-164-00	FILM 0.082uF 5%	50V
C623	1-136-164-00	FILM 0.082uF 5%	50V
C624	1-136-164-00	FILM 0.082uF 5%	50V
C625	1-136-164-00	FILM 0.082uF 5%	50V
C901	1-102-394-11	CERAMIC 0.01uF	250V
C902	1-102-394-11	CERAMIC 0.01uF	250V
C903	1-126-224-11	ELECT 4700uF 20%	42V
C904	1-126-224-11	ELECT 4700uF 20%	42V
C905	1-126-376-11	ELECT 470uF 20%	25V
C906	1-126-376-11	ELECT 470uF 20%	25V
C907	1-124-910-11	ELECT 47uF 20%	50V
C908	1-124-910-11	ELECT 47uF 20%	50V

< CONNECTOR >

CN202	* 1-569-491-11	SOCKET, CONNECTOR 5P
CN203	1-569-492-11	SOCKET, CONNECTOR 6P
CN302	* 1-569-491-11	SOCKET, CONNECTOR 5P
CN501	* 1-568-268-11	SOCKET, CONNECTOR 2P
CN601	1-569-492-11	SOCKET, CONNECTOR 6P
CN902	* 1-564-517-11	PLUG, CONNECTOR 2P
CN903	* 1-569-494-11	SOCKET, CONNECTOR 8P (AE1, AE2, UK, E12)
CNP1	* 1-564-321-00	PIN, CONNECTOR 2P
CNP2	* 1-535-139-00	BASE POST 19MM (10MM PITCH) 2P (US, E23)
CNP2	* 1-565-792-11	PIN, CONNECTOR 2P (AE1, AE2, UK, E12)
CNP101	* 1-564-517-11	PLUG, CONNECTOR 2P
CNP102	* 1-564-505-11	PLUG, CONNECTOR 2P
CNP201	* 1-564-509-11	PLUG, CONNECTOR 6P
CNP202	* 1-569-500-11	PIN, CONNECTOR 5P
CNP203	* 1-569-501-11	PIN, CONNECTOR 6P
CNP301	* 1-564-341-11	PIN, CONNECTOR 7P
CNP302	* 1-569-500-11	PIN, CONNECTOR 5P
CNP303	* 1-564-336-00	PIN, CONNECTOR 2P
CNP601	* 1-569-501-11	PIN, CONNECTOR 6P
CNP901	* 1-564-607-11	PIN, CONNECTOR 6P
CNP903	* 1-569-503-11	PIN, CONNECTOR 8P (AE1, AE2, UK, E12)

< DIODE >

D201	8-719-912-20	DIODE 1SS120
D202	8-719-912-20	DIODE 1SS120
D203	8-719-912-20	DIODE 1SS120
D204	8-719-912-20	DIODE 1SS120
D205	8-719-912-20	DIODE 1SS120
D206	8-719-912-20	DIODE 1SS120

Ref. No.	Part No.	Description	Remark
D207	8-719-912-20	DIODE 1SS120	
D401	8-719-912-20	DIODE 1SS120	
D402	8-719-912-20	DIODE 1SS120	
D601	8-719-912-20	DIODE 1SS120	
D603	8-719-912-20	DIODE 1SS120	
D604	8-719-912-20	DIODE 1SS120	
D605	8-719-912-20	DIODE 1SS120	
D606	8-719-912-20	DIODE 1SS120	
D607	8-719-912-20	DIODE 1SS120	
D701	8-719-303-00	DIODE SEL2510C	
D901	8-719-312-09	DIODE RBA-402	
D902	8-719-200-82	DIODE 11ES2	
D903	8-719-200-82	DIODE 11ES2	
D904	8-719-200-82	DIODE 11ES2	
D905	8-719-200-82	DIODE 11ES2	
D906	8-719-200-82	DIODE 11ES2	
D907	8-719-200-82	DIODE 11ES2	

< FUSE >

F1	△ 1-532-285-00	FUSE, TIME-LAG T1.25A (AE1, AE2, UK, E12)
F1	△ 1-532-744-11	FUSE, GLASS TUBE 2.5A (US, E23)
F901	△ 1-532-776-21	FUSE, MICRO (SECONDARY) 1A (US, E23)
F902		
F903	△ 1-532-299-00	FUSE, TIME-LAG T5A (AE1, AE2, UK, E12)
F904	△ 1-532-299-00	FUSE, TIME-LAG T5A (AE1, AE2, UK, E12)

< IC >

IC201	8-759-634-50	IC M5218AL
IC301	8-759-634-50	IC M5218AL
IC302	8-759-634-50	IC M5218AL
IC601	8-749-941-52	IC STK415211
IC602	8-759-111-68	IC uPC1237HA
IC901	8-759-604-39	IC M5F78M12L
IC902	8-759-604-45	IC M5F79M12L

< IC LINK >

ICP901	△ 1-532-839-11	LINK, IC (AE1, AE2, UK, E12)
ICP902	△ 1-532-839-11	LINK, IC (AE1, AE2, UK, E12)

< JACK >

J101	1-563-133-11	JACK, PIN 1P (INPUT)
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< TRANSISTOR >

Q201	8-729-620-05	TRANSISTOR 2SC2603-EF
Q202	8-729-620-05	TRANSISTOR 2SC2603-EF
Q203	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q204	8-729-188-23	TRANSISTOR 2SD882-P

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

P.S. POWER AMP AC LED PRIMARY AMP

CONNECTOR JACK SW FUSE

Ref. No.	Part No.	Description	Remark		
Q601	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q602	8-729-119-76	TRANSISTOR 2SA1175-HFE			
< RESISTOR >					
R101	1-247-752-11	CARBON	1K	5%	1/2W
R201	1-249-429-11	CARBON	10K	5%	1/4W
R202	1-249-437-11	CARBON	47K	5%	1/4W
R203	1-249-433-11	CARBON	22K	5%	1/4W
R204	1-249-393-11	CARBON	10	5%	1/4W
R205	1-247-891-00	CARBON	330K	5%	1/4W
R206	1-249-437-11	CARBON	47K	5%	1/4W
R207	1-249-413-11	CARBON	470	5%	1/4W
R208	1-247-903-00	CARBON	1M	5%	1/4W
R209	1-249-429-11	CARBON	10K	5%	1/4W
R210	1-249-429-11	CARBON	10K	5%	1/4W
R211	1-249-429-11	CARBON	10K	5%	1/4W
R212	1-249-421-11	CARBON	2. 2K	5%	1/4W
R213	1-249-421-11	CARBON	2. 2K	5%	1/4W
R214	1-249-433-11	CARBON	22K	5%	1/4W
R215	1-249-413-11	CARBON	470	5%	1/4W
R216	1-249-433-11	CARBON	22K	5%	1/4W
R217	1-249-417-11	CARBON	1K	5%	1/4W
R219	△ 1-212-849-00	FUSIBLE	4. 7	5%	1/4W F
R220	1-249-441-11	CARBON	100K	5%	1/4W
R301	1-249-422-11	CARBON	2. 7K	5%	1/4W
R302	1-249-430-11	CARBON	12K	5%	1/4W
R303	1-249-417-11	CARBON	1K	5%	1/4W
R304	1-249-418-11	CARBON	1. 2K	5%	1/4W
R305	1-247-887-00	CARBON	220K	5%	1/4W
R306	1-249-429-11	CARBON	10K	5%	1/4W
R307	1-249-417-11	CARBON	1K	5%	1/4W
R308	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-429-11	CARBON	10K	5%	1/4W
R310	1-249-429-11	CARBON	10K	5%	1/4W
R311	1-247-885-00	CARBON	180K	5%	1/4W
R312	1-249-417-11	CARBON	1K	5%	1/4W
R313	1-249-418-11	CARBON	1. 2K	5%	1/4W
R314	1-249-418-11	CARBON	1. 2K	5%	1/4W
R315	1-249-441-11	CARBON	100K	5%	1/4W
R401	1-249-427-11	CARBON	6. 8K	5%	1/4W
R402	1-249-432-11	CARBON	18K	5%	1/4W
R403	1-249-427-11	CARBON	6. 8K	5%	1/4W
R404	1-249-432-11	CARBON	18K	5%	1/4W
R405	1-249-427-11	CARBON	6. 8K	5%	1/4W
R406	1-249-427-11	CARBON	6. 8K	5%	1/4W
R407	1-249-417-11	CARBON	1K	5%	1/4W
R501	1-249-417-11	CARBON	1K	5%	1/4W
R502	1-249-421-11	CARBON	2. 2K	5%	1/4W
R503	1-249-421-11	CARBON	2. 2K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R601	1-249-417-11	CARBON	1K	5%	1/4W
R602	1-249-438-11	CARBON	56K	5%	1/4W
R603	1-249-438-11	CARBON	56K	5%	1/4W
R604	1-249-414-11	CARBON	560	5%	1/4W
R605	△ 1-212-881-11	FUSIBLE	100	5%	1/4W F
R606	1-249-417-11	CARBON	1K	5%	1/4W
R607	1-249-418-11	CARBON	1.2K	5%	1/4W
R608	1-249-418-11	CARBON	1.2K	5%	1/4W
R609	1-249-417-11	CARBON	1K	5%	1/4W
R610	△ 1-212-881-11	FUSIBLE	100	5%	1/4W F
R611	1-217-151-00	RES. METAL PLATE 0.22			
R612	1-249-417-11	CARBON	1K	5%	1/4W
R613	1-249-431-11	CARBON	15K	5%	1/4W
R614	1-249-441-11	CARBON	100K	5%	1/4W
R615	1-249-437-11	CARBON	47K	5%	1/4W
R616	1-249-438-11	CARBON	56K	5%	1/4W
R617	1-249-429-11	CARBON	10K	5%	1/4W
R618	1-249-405-11	CARBON	100	5%	1/4W
R619	1-249-413-11	CARBON	470	5%	1/4W
R620	1-249-438-11	CARBON	56K	5%	1/4W
R621	1-249-417-11	CARBON	1K	5%	1/4W
R622	1-249-418-11	CARBON	1.2K	5%	1/4W
R623	1-249-418-11	CARBON	1.2K	5%	1/4W
R624	1-249-417-11	CARBON	1K	5%	1/4W
R625	△ 1-212-881-11	FUSIBLE	100	5%	1/4W F
R626	1-249-413-11	CARBON	470	5%	1/4W
R627	1-249-413-11	CARBON	470	5%	1/4W
R628	1-249-413-11	CARBON	470	5%	1/4W
R629	1-249-413-11	CARBON	470	5%	1/4W
R631	1-249-389-11	CARBON	4.7	5%	1/4W
R632	1-249-389-11	CARBON	4.7	5%	1/4W
R634	1-249-389-11	CARBON	4.7	5%	1/4W
R635	1-249-389-11	CARBON	4.7	5%	1/4W
R636	1-249-429-11	CARBON	10K	5%	1/4W
R637	1-249-429-11	CARBON	10K	5%	1/4W
R638	1-249-433-11	CARBON	22K	5%	1/4W
R639	1-249-433-11	CARBON	22K	5%	1/4W
R640	1-249-441-11	CARBON	100K	5%	1/4W
R641	1-249-437-11	CARBON	47K	5%	1/4W
R642	1-249-425-11	CARBON	4.7K	5%	1/4W
R643	1-249-425-11	CARBON	4.7K	5%	1/4W
R644	△ 1-215-890-11	METAL OXIDE	470	5%	2W F
R645	1-249-438-11	CARBON	56K	5%	1/4W
R701	1-249-418-11	CARBON	1.2K	5%	1/4W
R702	1-249-418-11	CARBON	1.2K	5%	1/4W
R903	1-249-429-11	CARBON	10K	5%	1/4W

Note: The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

P.S.

POWER AMP

AC

LED

PRIMARY AMP

CONNECTOR

JACK

SW

FUSE

Ref. No.	Part No.	Description	Remark
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< VARIABLE RESISTOR >

RV401 1-241-425-11 RES. VAR. CARBON 5K (VOLUME)

< RELAY >

RY601 1-515-533-11 RELAY

RY901 1-515-533-11 RELAY

< SWITCH >

S1 △ 1-572-267-21 SWITCH, PUSH (AC POWER) (1 KEY) (POWER)

S401 1-571-742-11 SWITCH, ROTARY (PHASE)

S402 1-572-531-11 SWITCH, ROTARY (TURNOVER)

S601 1-572-441-11 SWITCH, PUSH (BOOST)

< POSISTOR >

TH501 1-800-427-00 POSISTOR

MISCELLANEOUS

13 △ 1-575-105-21 CORD, POWER (US)

13 △ 1-575-651-32 CORD, POWER (AE1, AE2, E12)

13 △ 1-575-653-11 CORD, POWER (E23)

13 △ 1-575-669-31 CORD, POWER (UK)

FAN101 1-541-789-11 MOTOR, DC FAN

SP101 1-544-455-11 SPEAKER (10CM)

SP102 1-544-455-11 SPEAKER (10CM)

SP103 1-544-455-11 SPEAKER (10CM)

SP104 1-544-455-11 SPEAKER (10CM)

T901 △ 1-450-434-11 TRANSFORMER, POWER (UK, E12)

T901 △ 1-450-435-11 TRANSFORMER, POWER (US, E23)

T901 △ 1-450-436-11 TRANSFORMER, POWER (AE1, AE2)

TH501 1-800-427-00 POSISTOR

ACCESSORY & PACKING MATERIAL

1-465-753-11 ADAPTOR

1-590-136-11 CORD, CONNECTION

3-701-630-00 BAG, POLYETHYLENE

3-704-298-01 BAG (STANDARD), PROTECTION

3-753-154-11 MANUAL, INSTRUCTION

(ENGLISH, FRENCH, SPANISH, CHINESE)

(AE1, AE2, E12, E23)

3-753-154-21 MANUAL, INSTRUCTION(ENGLISH)(US, UK)

3-753-154-41 MANUAL, INSTRUCTION

(GERMAN, DUTCH, SWEDISH, ITALIAN,

PORTUGUESE)(AE1, AE2)

* 4-941-026-01 CUSHION

* 4-944-386-01 INDIVIDUAL CARTON

Ref. No.	Part No.	Description	Remark
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HARDWARE LIST

# 1	7-685-546-14	SCREW +BTP 3X8 TYPE2 N-S
# 2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT
# 3	7-685-650-79	SCREW +BVTP 3X16 TYPE2
# 4	7-621-770-67	SCREW +BVTT 2.6X6 (S)
# 5	7-682-547-04	SCREW +BVTT 3X6 (S)
# 6	7-682-555-04	SCREW +BVTT 3X30 (S)
# 7	7-682-561-04	SCREW +BVTT 4X8 (S)
# 8	7-685-646-79	SCREW +BVTP 3X8 TYPE2
# 9	7-682-565-09	SCREW (M4X16)

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.